

Concept of wind LIDAR system with the adaptive parameter tuning to atmospheric condition. Nobuki Kotake, Masaharu Imaki and Shumpei Kameyama, Mitsubishi Electric Corporation (Japan).

ABSTRACT

Conventional wind LIDAR (Light Detection And ranging) systems has an issue in the performance fluctuation, since Signal to Noise Ratio (SNR) depends on the atmospheric condition as like the aerosol density, turbulence and so on. For example, it is known that the measurable range fluctuates distinctly even in a day. To overcome this issue, we invented the concept of the wind LIDAR system with the adaptive parameter tuning to atmospheric condition, which automatically realize the best performance under the given atmospheric condition. We had completed to file the patents of this concept, and additionally, of the key components, and software algorithms related to this concept. In this presentation, we introduce the above mentioned concept and the advantageous effects.